Frank E. Peterkin, Ph.D.

Distinguished Scientist/Engineer for Directed Energy

Naval Surface Warfare Center, Dahlgren Division

Dr. Frank E. Peterkin is the Navy's Senior Technologist for Directed Energy, a position in the Senior Professional cadre of the Federal Executive Service. He was appointed in July 2017 and serves as the Navy's National and International leader in the development of technologies, applications, and systems for Directed Energy and related Electric Weapons. His areas of expertise include High Energy Laser weapons, Radio Frequency and Microwave weapons, Electromagnetic Railgun, and Pulsed Power. He also serves as the Directed Energy Portfolio Manager for the Office of Naval Research (ONR).

Dr. Peterkin has been a Department of Navy employee for 27 years. From 2014-2017 he was the Electric Weapons Program Manager in the Air Warfare and Weapons Department at ONR. In this capacity, Dr. Peterkin had oversight of Directed Energy and Electromagnetic Railgun activities and was responsible for the technical approaches of the largest prototyping projects in the Navy's Science and Technology Program.

From 2009-2014 Dr. Peterkin headed the Directed Energy Warfare Office (DEWO) at the Naval Surface Warfare Center, Dahlgren Division (NSWCDD) in Dahlgren, VA. As the DEWO director, he was responsible for developing the strategic focus and fostering growth of NSWCDD's portfolio of activities in Directed Energy. In this timeframe, Dr. Peterkin also served as the Technical Authority for Directed Energy in support of the Naval Sea Systems Command Engineering Directorate (SEA 05).

Dr. Peterkin is DAWIA SPRDE - SE Level III certified and a member of the Defense Acquisition Corps. He received his B.S., M.S., and Ph.D. degrees in Electrical Engineering from the University of Nebraska-Lincoln. He was a National Merit Scholar and completed his graduate studies under a National Science Foundation Graduate Fellowship. After working as a Research Scientist at Old Dominion University, he joined NSWCDD in 1995. His early career as an engineer was focused on technologies and concepts supporting the development of High Power Microwave weapons, including development of multi-megavolt Marx-bank generators, high-voltage/high-rate capacitor charging power supplies, compact battery systems, and high peak power RF systems.

Dr. Peterkin serves on numerous committees, panels, and working groups for Directed Energy topics within the Department of Navy and the Department of Defense and is an active participant in many professional and conference activities as part of the Directed Energy Professional Society. He previously served as the Chair and Technical Chair of the Institute of Electrical and Electronic Engineers (IEEE) International Pulsed Power Conference, as well as the Technical Chair and Treasurer of the IEEE Power Modulator Conference. Dr. Peterkin has published more than 50 papers in journals and conference proceedings and holds five patents.

Dr. Peterkin has been recognized with numerous honors during his career, including the Navy Superior Civilian Service Award in 2018 and is a two-time recipient of the Navy Meritorious Civilian Service Award (2007 and 2016). In 2018, he was presented with the NSWCDD John Adolphus Dahlgren Award, the command's highest honor for individuals with significant achievement in science, engineering, or management.